

WE CLAIM:

1. A rotatable latching device for a portable electronic device having a two part housing wherein a first housing member rotates relative to a second housing member about an axis substantially perpendicular to a front surface of said device,

said latching device including a body having a rotatable cam element, said cam element in use being urged to rotate about a rotational axis between a closed position and an open position by a torsional biasing member; and,

a latchable detent follower selectively engageable with said cam element to retain cam element in said open or closed position against a restoring force applied by said torsional biasing member, said cam element being rotatable at least partially from an open position to disengage said detent follower to allow said cam element to selectively engage said detent follower at a position intermediate said open position and said closed position against the influence of said torsional biasing member.

2. A latching device as claimed in claim 1 wherein said cam element comprises a substantially circular member having at least one detent engaging surface adjacent a circumferential edge of said substantially circular member.

3. A latching device as claimed in claim 2 wherein said cam element comprises two or more circumferentially spaced detent engaging surfaces.

4. A latching device as claimed in claim 3 wherein said detent engaging surfaces are formed on a radially outwardly extending protrusion on said cam element.

5. A latching device as claimed in claim 3 wherein said detent engaging surfaces are radially inwardly extending recesses on said cam element.

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6. A latching device as claimed in claim 3 wherein said detent engaging surfaces are at least partially complementary to an engaging surface of a detent follower of said detent follower.

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7. A latching device as claimed in claim 1 wherein said detent follower is resiliently biased in a direction radially inwardly of said cam element.

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8. A latching device as claimed in claim 1 wherein said detent follower is selectively latchable in a retracted position by a releasable resiliently biased latching mechanism.

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9. A latching device as claimed in claim 8 wherein the detent follower is urgeable from an extended unlatched position to a retracted latched position by at least partial rotation of said cam element from said closed position to urge said radially outwardly extending protrusion into engagement with said detent follower whereby said cam element is urged to rotate to said position under the influence of the restoring force of said torsional biasing member.

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10. A latching device as claimed in claim 9 including a trip mechanism actuable as said cam element approaches said open position to release said detent follower to an unlatched position to engage with a further detent engaging surface to retain said cam element in said open position against the restoring influence of said torsional biasing member.

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11. A latching device as claimed in claim 10 wherein said further detent engaging surface comprises a radially inwardly extending recess.

5 12. A latching device as claimed in claim 10 wherein said cam element is retainable at least one intermediate position between said closed position and said open position by a respective at least one radially inwardly extending recess on said cam element.

10 13. A latching device as claimed in claim 1 wherein said open position is located at from 150° to 210° from said closed position.

14. A latching device as claimed in claim 1 wherein said at least one intermediate position is located at from 70° to 110° from said closed position.

15 15. A latching device as claimed in claim 1 wherein said body of said rotatable latching device includes an upright at least partially continuous wall surface to rotatably locate said rotatable cam element.

20 16. A latching device as claimed in claim 1 wherein said body includes at least one mounting member to secure said latching device in a housing member.

25 17. A latching member as claimed in claim 1 wherein at least portion of said cam element is exposed via an aperture in said body to permit attachment of a housing member to said cam element for rotation therewith.

30 18. A portable electronic device having a two part housing wherein a first housing member rotates relative to a second housing member about an axis substantially perpendicular to a front surface of said device, said latching device including:-

a body having a rotatable cam element, said cam element in use being urged to rotate about a rotational axis completely between a closed position and an open position by a torsional biasing member; and,

5 a latchable detent follower selectively engageable with said cam element to retain cam element in said open or closed position against a restoring force applied by said torsional biasing member, said cam element being rotatable at least partially from an open position to disengage said detent follower to allow said cam element
10 to selectively engage said detent follower at a said open position and said closed position against the influence of said torsional biasing member, said body being securable to one of said first or second housing members and said cam element being securable to another of said first or second housing members.

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19. A portable electronic device as claimed in claim 18 wherein said cam element comprises a substantially circular member having at least one detent engaging surface adjacent a circumferential edge of said substantially circular member.

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20. A portable electronic device as claimed in claim 19 wherein said cam element comprises two or more circumferentially spaced detent engaging surfaces.

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21. A portable electronic device as claimed in claim 18 wherein said detent follower is selectively latched in a retracted position by a releasable resiliently biased latching mechanism.

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22. A portable electronic device as claimed in claim 21 wherein the detent follower is urgeable from an extended unlatched position to a retracted latched position by at least partial rotation of said cam element

from said closed position to urge said radially outwardly extending protrusions into engagement with said detent follower whereby said cam element is urged to rotate to said open position under the influence of the restoring force of said torsional biasing member.

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23. A portable electronic device as claimed in claim 1 wherein the latching mechanism includes a trip mechanism actuable in use by a trip member secured to a housing member attached to said cam element as said cam element approaches said second position to release said detent follower to an unlatched position to engage with a further detent engaging surface to retain said cam element in said open position against the restoring influence of said torsional biasing member.

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24. A portable electronic device as claimed in claim 18 including at least one display screen.

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25. A portable electronic device as claimed in claim 24 wherein said electronic device includes a display screen on an outer face of said first housing member, said first housing member being selectively rotatable relative to said second housing member to orient said display screen in a portrait or landscape configuration.

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26. A portable electronic device as claimed in claim 18 including a digital camera device.

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